



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,557	12/19/2005	Andes Monzon	60,469-242; OT-5132 SWO	9849
Theodore W Olds Carlson Gascky & Olds Suite 350 400 W Maple Road Birmingham, MI 48009			EXAMINER PICO, ERIC E	
			ART UNIT 3654	PAPER NUMBER
			MAIL DATE 07/02/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/561,557

Applicant(s)

MONZON ET AL.

Examiner

ERIC PICO

Art Unit

3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 5/8/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim(s) 1, 2, and 4-20** is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Orrman et al. U.S. Publication No. 2002/0017434 in view of Nakagaki et al. U.S. Publication No. 2002/0070080.
3. **Regarding claim 1**, Orrman et al. discloses an elevator comprising:
 4. an elevator car 2 movable along car guide rails 1;
 5. a counterweight 4 movable along counterweight guide rails 3;
 6. a bedplate, referred to as transverse support 17, supported by the car and counterweight guide rails; and
 7. a machine, referred to as drive motor 8, supported by the bedplate 17 and driving a tension member, referred to as rope 9, interconnecting the counterweight 4 and the car 2, opposed ends of the tension member 9 being connected at dead end hitches, referred to as first end 10 and second end 11, the bedplate 17 having a vertically lowermost surface, the dead end hitches 10, 11 associated with each of the opposed ends of tension member 9 being received on a bedplate 17 and such that they will be

between the car 2 and a single wall 12 when the elevator is mounted within an elevator shaft.

8. Orrman et al. is silent concerning the dead end hitches extending above the vertically lowermost surface.

9. Nakagaki et al. teaches an elevator comprising:

10. an elevator car, referred to as cage 20, movable along car guide rails 22, 23;

11. a counterweight 30 movable along counterweight guide rails 31, 32;

12. a bedplate, referred to as connecting beam 33 supported by the car and counterweight guide rails 22, 31, 32; and

13. a machine, referred to as driving unit 40 supported by the bedplate 33 and driving a tension member, referred to as hoist cable 50, 60 interconnecting the counterweight 30 and the car 20, opposed ends of the tension member 50, 60 being connected at dead end hitches, referred to as anchoring ends 53, 57, 63, 67, the bedplate 33 having a vertically lowermost surface, shown in Figures 1-3, and the dead end hitches 53, 63 end extending above the vertical lowermost surface.

14. It would have been obvious to one of ordinary skill in the art at the time of the invention to extend the dead end hitches disclosed by Orrman et al. above the vertically lowermost surface as taught by Nakagaki et al. to facilitate the connection between the dead end hitch and the bedplate and protect the dead end hitch.

15. **Regarding claim 2**, Orrman et al. discloses the dead end hitches 10, 11 are mounted on the bedplate 17.

16. **Regarding claim 4**, Orrman et al. is silent concerning the bedplate is formed by a pair of C-shaped beams each having an internal space and at least one of the dead hitches is positioned within the internal space.

17. Nakagaki et al. teaches the bedplate 33 is formed by a pair of C-shaped beams, creating an I-beam shown in Figure 2, having an internal space and dead end hitches, referred to as anchoring ends 53, 63, positioned within the internal space, shown in Figure 2.

18. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the bedplate disclosed by Orrman et al. by a pair of C-shaped beams each having an internal space and at least one of the dead hitches is positioned within the internal space as taught by Nakagaki et al. to protect the dead end hitch.

19. **Regarding claim 5, 15, and 17**, Orrman et al. discloses a bedplate 17 is supported by both of the car and counterweight guide rails 1, 3.

20. **Regarding claim 6**, Orrman et al. is silent concerning a plurality of the tension members and two sets of a corresponding plurality of dead end hitches, the dead end hitches of each of the two sets being aligned in an array that is generally parallel to a rotational axis of the machine.

21. Nakagaki et al. teaches a plurality of tension members, referred to as hoist cables 50, 60, and two sets of a corresponding plurality of dead end hitches, referred to as anchoring ends 53, 57, 63, 67, the dead end hitches.

22. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the elevator disclosed by Orrman et al. with a plurality of the tension

Art Unit: 3654

members and two sets of a corresponding plurality of dead end hitches, the dead end hitches of each of the two sets being aligned in an array that is generally parallel to a rotational axis of the machine as taught by Nakagaki et al. to facilitate the lifting and support of the elevator car.

23. Furthermore, it would have been obvious to one of ordinary in the art at the time of the invention was made to provide a plurality of tension members and two sets of a corresponding plurality of dead end hitches, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

24. **Regarding claim 7 and 12**, Orrman et al. discloses dead end hitches 10, 11 disposed on opposed lateral sides of the rotational axis of the machine 8.

25. **Regarding claim 8**, Orrman et al. discloses the machine 8 comprises a traction sheave 5 having a plurality of sheave surfaces, shown in Figures 2 and 3, for engaging and driving the tension member 9, and the dead end hitches 10, 11 are disposed within an axial distance defined by ends of the traction sheave 5.

26. Orrman et al. is silent concerning a plurality of tension members.

27. Nakagaki et al. teaches the machine 41 comprises a traction sheave 44, 45 having a plurality of sheave surfaces, shown as the surfaces of traction sheave 44, 45, for engaging and driving the plurality of tension members 50, 60, and the dead end hitches 53, 57, 63, 67 disposed within an axial distance defined by ends of the traction sheave 44, 45.

Art Unit: 3654

28. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the elevator disclosed by Orrman et al. with a plurality of tension members as taught by Nakagaki et al. to facilitate the lifting and support of the elevator car.

29. **Regarding claim 9**, Orrman et al. discloses wherein each of the sheave surfaces is aligned with a respective one of the dead end hitches 10, 11.

30. Orrman et al. is silent concerning wherein each of the sheave surfaces is aligned with a respective one of the dead end hitches in each of the sets of dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to the rotational axis.

31. Nakagaki et al. teaches each of the sheave surfaces are aligned with a respective one of the dead end hitches 53, 57, 63, 67 in each of the sets of dead end hitches 53, 57, 63, 67 such that a line drawn through one of the sheave surfaces and its two associated dead end hitches 53, 57, 63, 67 is perpendicular to the rotational axis 42, 43.

32. It would have been obvious to one of ordinary skill in the art at the time of the invention to align the sheave surfaces disclosed by Orrman et al. with a respective one of the dead end hitches in each of the sets of dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to the rotational axis as taught by Nakagaki et al. to reduce twisting of the tension member.

33. **Regarding claim 10**, Orrman et al. discloses the machine 8 comprises a traction sheave 5 having a plurality of sheave surfaces, shown in Figures 2 and 3, for engaging and driving the tension member 9, wherein each of the sheave surfaces are aligned with a respective dead end hitch 10, 11.

34. Orrman et al. is silent concerning a plurality of tension member, wherein each of the sheave surfaces are aligned with a respective pair of the dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to a rotational axis of the traction sheave.

35. Nakagaki et al. teaches the machine comprises a traction sheave 44, 45 having a plurality of sheave surfaces for engaging and driving a plurality of tension members 50, 60, wherein each of the sheave surfaces are aligned with a respective pair of the dead end hitches 53, 57, 63, 67 such that line drawn through one of the sheave surfaces and its two associated dead end hitches 53, 57, 63, 67 are perpendicular to a rotational axis 42, 43 of the traction sheave 44, 45.

36. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the elevator disclosed by Orrman et al. with a plurality of tension members as taught by Nakagaki et al. to facilitate the lifting and support of the elevator car.

37. It would have been obvious to one of ordinary skill in the art at the time of the invention to align the sheave surfaces disclosed by Orrman et al. with a respective one of the dead end hitches in each of the sets of dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is

perpendicular to the rotational axis as taught by Nakagaki et al. to reduce twisting of the tension member.

38. **Regarding claim 11**, Orrman et al. discloses an elevator comprising:

39. an elevator car 2 movable along car guide rails 1;

40. a counterweight 4 movable along counterweight guide rails 3;

41. a bedplate, referred to as transverse support 17, supported by the car and counterweight guide rails; and

42. a machine, referred to as drive motor 8, supported by the bedplate 17 and driving a tension member, referred to as rope 9, interconnecting the counterweight 4 and the car 2, opposed ends of the tension member 9 being connected at dead end hitches, referred to as first end 10 and second end 11, the bedplate 17 having a vertically lowermost surface, the dead end hitches 10, 11, the dead end hitches 10, 11 associated with each of the opposed ends of tension member 9 being received on the bedplate 17 and such that they will be between the car 2 and a single wall 12 when the elevator is mounted within an elevator shaft.

43. Orrman et al. is silent concerning a plurality of tension members, and there being two sets of aligned dead end hitches, each set of dead end hitches being supported by the bedplate in an array that is generally parallel to a rotational axis of the machine.

44. Nakagaki et al. teaches an elevator comprising:

45. an elevator car 20 movable along car guide rails 22, 23;

46. a counterweight 30 movable along counterweight guide rails 31, 32;

47. a bedplate 33 supported by the car and counterweight guide rails 22, 31, 32; and

Art Unit: 3654

48. a machine 40 supported by the bedplate 33 and driving a plurality of tension members 50, 60 interconnecting a counterweight 30 to a car 20, opposed ends of the tension members 50, 60 being connected at dead end hitches 53, 57, 63, 67, there being two sets of aligned dead hitches 53, 57, 63, 67, each set of dead hitches 53, 57, 63, 67 in an array that is generally parallel to a rotational axis 42, 43 of a machine 41.

49. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the elevator disclosed by Orrman et al. with a plurality of tension members and two sets of aligned dead end hitches, each set of dead end hitches being supported by the bedplate in an array that is generally parallel to a rotational axis of the machine as taught by Nakagaki et al. to facilitate the lifting and support of the elevator car.

50. **Regarding claim 13**, Orrman et al. discloses the machine 8 comprises a traction sheave 5 having a plurality sheave surfaces, shown in Figures 2 and 3, for engaging and driving the tension member 9 and the dead end hitches 10, 11 are disposed within an axial distance defined by the ends of the traction sheave 5.

51. Orrman et al. is silent concerning a plurality of tension members.

52. Nakagaki et al. the machine 40 comprises a traction sheave having a plurality of sheave surfaces for engaging and driving the plurality of tension members 50, 60, and the dead end hitches 53, 57, 63, 67 are disposed within an axial distance defined by ends of the traction sheave 44, 45.

53. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the elevator disclosed by Orrman et al. with a plurality of tension

members as taught by Nakagaki et al. to facilitate the lifting and support of the elevator car.

54. **Regarding claim 18-20**, Orrman et al. discloses a dead end hitch 10 associated with one of the opposed ends of the tension member 9 being on a first side of a rotational axis of the traction sheave 5, and a dead end hitch 11 associated with the other of the opposed ends of the tension member 9 being on an opposed side of the rotational axis of the traction sheave 5.

55. **Regarding claim 14**, Orrman et al. discloses wherein each of the sheave surfaces are aligned with a respective one of the dead end hitch 10, 11.

56. Orrman et al. is silent concerning sets of dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to the rotational axis.

57. Nakagaki et al. teaches wherein each of the sheave surfaces are aligned with a respective one of the dead end hitch 53, 57, 63, 67 in each of the sets of dead end hitches 53, 57, 63, 67 such that a line drawn through one of the sheave surfaces and its two associated dead end hitches 53, 57, 63, 67 is perpendicular to the rotational axis 42, 43.

58. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the elevator disclosed by Orrman et al. with sets of dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to the rotational axis as taught by Nakagaki et al. to reduce twisting of the tension member.

59. **Regarding claim 16**, Orrman et al. discloses an elevator comprising:
60. an elevator car 2 movable along car guide rails 1;
61. a counterweight 4 movable along counterweight guide rails 3;
62. a bedplate, referred to as transverse support 17, supported by the car and counterweight guide rails; and
63. a machine, referred to as drive motor 8, supported by the bedplate 17 and comprising a traction sheave 5 for engaging and driving a tension member 9 interconnecting the counterweight 4 to the car 2, opposed ends of the tension member 9 connected via dead end hitches 10, 11 to the bedplate 17,
64. the traction sheave 5 having a plurality of sheave surfaces, shown in Figures 2 and 3, corresponding to the tension member 9, wherein each of the sheave surfaces is axially aligned with the respective dead end hitches 10, 11, the dead end hitches 10, 11 associated with each of the opposed ends of the tension member 9 being received on the bedplate 17 and such that they will be between the car 2 and a single wall when the elevator is mounted within an elevator shaft.
65. Orrman et al. is silent concerning a plurality of tension members, wherein each of the sheave surfaces is axially aligned with a respective pair of the dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to a rotational axis of the traction sheave.
66. Nakagaki et al. teaches an elevator comprising:
67. an elevator car 20 movable along car guide rails 22, 23;
68. a counterweight 30 movable along counterweight guide rails 31, 32;

Art Unit: 3654

69. a bedplate 33 supported by the car and counterweight guide rails 22, 31, 32; and

70. a machine 40 supported by the bedplate 33 comprising a traction sheave 44, 45 for engaging and driving a plurality of tension members 50, 60 interconnecting the counterweight 30 to the car 20, opposed ends of the tension members 50, 60 being connected via dead end hitches 53, 57, 63, 67 to the bedplate 33,

71. the traction sheave 44, 45 having a plurality of sheave surfaces corresponding to the plurality of tension members 50, 60, wherein each of the sheave surfaces are axially aligned with a respective pair of the dead hitches 53, 57, 63, 67 such that a line drawn through one of the sheave surfaces and its two associated dead end hitches 53, 57, 63, 67 are perpendicular to a rotational axis 42, 43 of the traction sheave 44, 45.

72. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the elevator disclosed by Orrman et al. with a plurality of tension members as taught by Nakagaki et al. to facilitate the lifting and support of the elevator car.

73. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the elevator disclosed by Orrman et al. with sets of dead end hitches such that a line drawn through one of the sheave surfaces and its two associated dead end hitches is perpendicular to the rotational axis as taught by Nakagaki et al. to reduce twisting of the tension member.

74. **Claim(s) 3 and 21** is/are rejected under 35 U.S.C. 103(a) as being unpatentable Orrman et al. U.S. Publication No. 2002/0017434 over in view of Nakagaki et al. U.S.

Publication No. 2002/0070080 as claimed in claim 2 and further in view of Ando U.S. Patent No. 6435316.

75. **Regarding claim 3 and 21**, Orrman et al. discloses the bedplate 17 is formed by at least one beam and the dead end hitches 10, 11 are supported by a vertical portion of the beam 17.

76. Orrman et al. is silent concerning the dead end hitches are supported by a vertical uppermost portion of the beam.

77. Ando teaches a bedplate, referred to as rope end fixing member 37, is formed by at least one beam, and the dead end hitches, referred to as fastening member 19, are supported by a vertical uppermost portion of the beam 37, shown in Figure 3.

78. It would have been obvious to one of ordinary skill in the art at the time of the invention to support the dead end hitches disclosed by Orrman et al. by a vertical uppermost portion of the beam as taught by Ando to facilitate the connection between the bedplate and the dead end hitches.

Response to Arguments

79. Applicant's arguments filed 4/14/2008 have been fully considered but they are not persuasive.

80. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was

Art Unit: 3654

within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

81. In response to applicant's argument that there is nothing in the prior art to suggest combining Orrman et al. U.S. Publication No. 2002/0017434 over in view of Nakagaki et al. U.S. Publication No. 2002/0070080. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Firstly, it should be noted that there is no requirement that an express, written suggestion to combine must appear in prior art references before a finding of obviousness. In addition to the teachings of the references themselves, the suggestion to combine references may be found in the nature of the problem to be solved or the knowledge of persons of ordinary skill in the art. Furthermore, while there must be a motivation to make the claimed invention, there is no requirement that the prior art provide the same reason as the applicant to make the claimed invention. In this case, the suggestion to combine Orrman et al. in view of Nakagaki et al. comes from the knowledge of persons of ordinary skill in the art that extending the dead end hitches above a vertically lowermost surface would facilitate the connection between the dead end hitch and the bedplate and protect the dead end hitch.

Conclusion

82. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC PICO whose telephone number is (571)272-5589. The examiner can normally be reached on 6:30AM - 3:00PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3654

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EEP

/Peter M. Cuomo/

Supervisory Patent Examiner, Art Unit 3654